

Italian Physical Therapists' Response to the Novel COVID-19 Emergency

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Point of View

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The Coronavirus disease-2019 (Covid-19) epidemic is spreading all over the world and it is having an outstanding impact on the Italian National Health Service.¹ The outbreak of novel Covid-19 in Lombardy, Italy, began in late February 2020, although an earlier silent spread is assumed to have occurred. Italy has one of the highest global burdens of Covid-19, with more than 77,635 cases and 12,428 deaths up to March 31, 2020.

This epidemiological transition in Italy is continuously updated with characteristics of patients with Covid-19 who have died, including: average age (78 years old), sex (70% men), pathologies before hospitalization (Patients with 0 pre-existing pathologies 2%; patients with 1 pre-existing pathology 21%; patients with 2 pre-existing pathologies 26%; patients with 3 or more pre-existing conditions 51%). Lombardy has registered 66% of the Covid-19 deaths in Italy¹.

On February 20, 2020, in Lombardy, a man was admitted with an atypical pneumonia that later proved to be Covid-19.² When it was identified that community transmission was occurring, including several cases without any connections to previous cases or travel histories to China, Lombardy raised its pandemic preparedness alert level establishing red zones in the affected areas. A series of gradually increased countermeasures has been implemented involving all professional groups, including physical therapists. In conjunction with this, an important document was drafted by the Italian Association of Physiotherapy (A.I.F.I.) in collaboration with the professional registry for physical therapists.³ This document gives "operational suggestions" about clinical instances where physical therapy intervention is still indicated to restore functional recovery. These operational suggestions include:

- 1) to suspend all physical therapy treatments, with the exception of: respiratory physical therapy in hospitalized patients; post-operative intervention to reestablish mobility and respiratory function; intervention after trauma with fractures; and intervention in the immediate post-acute phase of disabling heart disease and neurological patients (all with appropriate personal protective equipment);
- 2) to transform all non-essential treatments into a tele-rehabilitation modality and to manage clinical cases through telephone or webcam counselling in order to

supervise exercise sessions that can be temporarily self-managed by the patient or care-giver;

- 3) to re-evaluate the possibility, in relation to the epidemiological evolution of the pandemic, of reintroducing certain contact situations (with appropriate personal protective equipment and devices), but only in circumstances that require urgent hands-on treatment, given that otherwise the health of the patient could degenerate due to hypomobility, respiratory dysfunction or contextual factors.

During physical therapy treatment, it is impossible to maintain an interpersonal distance greater than 1.5 metres; therefore, personal protective equipment are essential for the safety of everybody: the patient, the practitioner, and the community. If the above-mentioned operational suggestions are not possible, it is recommended to suspend treatments that can be postponed.³

Given the directives of the representatives of Italian physical therapists, many private practitioners have suspended their activity with the aim of avoiding the spread of contagions fomented by patients' travels and and reducing contact between people. For many professionals, it was an important choice from an economic point of view; nevertheless, many physical therapists in the private sector have exploited the tech resources they have to ensure continuity of treatment through tele-rehabilitation. The potential role of the telehealth systems is to prevent overcrowding while preventing human exposures and facilitating high-quality care.⁴

Often the Italian news bulletins or newspapers discuss about doctors and nurses, however also Italian physical therapists are 'on the frontline' fighting the battle against the 'invisible enemy': Covid-19.⁵ All health professionals are involved in this emergency. Many physical therapists made themselves available to help on the frontline for their specific

skills. In fact, in the acute phases of the pathology, the respiratory physical therapists support the work of intensive care physicians, pulmonologists and nurses by: providing qualified care in the different modalities of non-invasive mechanical ventilation (NIV); monitoring and addressing respiratory fatigue; preventing the complications of prolonged immobility; prone positioning to improve gas exchange in severely ill subjects; participating in the weaning from invasive mechanical ventilation protocols; and assisting in the recovery of the patient's autonomy in activities of daily life, which is often compromised by long periods of sedation and prolonged hospitalization. In a quick response to the increasing demand of patients in intensive care unit, the "Associazione dei riabilitatori dell'Insufficienza Respiratoria" (ArlR) had written an outstanding position paper that covers everything regarding physical therapy practice in intensive care units.⁶

In Italy, at the beginning of the spread of the epidemic, there were approximately 5,200 beds in intensive care units.⁷ The situation in the epicenter area has been described as terrifying with overcrowded hospitals and lack of medications, ventilators, oxygen, and personal protective equipment.⁸ So, it is also very important to reduce the length of hospitalization and therefore to free up places more quickly and allow other patients to be accommodated, given the serious shortage of beds compared to the growth of the contagion.

Many colleagues from Milan, Lombardy, and surrounding cities are organizing themselves into a sort of "physical therapy task force", to help each other to quickly improve their skills and knowledge but also to take action where necessary. In addition, many physical therapists are making themselves available for a variety of activities every day, even on Saturday, Sunday, or at night, depending on what the emergency situation requires at that time (for example helping in the hospital triage). Many colleagues work in

Covid-19 wards to manage patients with respiratory failure following the viral infection but they also support medical and nursing staff where this sudden situation puts a strain on them.

With the epidemic getting worse, Italian physical therapists have had a sense of belonging and solidarity with society. They are living with the fear that their colleagues and families are at risk of infection with Covid-19. These circumstances can lead to mental health problems, such as denial, stress, anxiety, and fear.⁹ Hence, psychological issues in this current emergency should not be underestimated. Messages of solidarity to Italian physical therapists in Lombardy have been sent by colleagues and societies from all around the world, offering support and resources to respond to the crisis.

The Italian situation has received substantial attention from Europe. The head of the World Health Organization praised Italy's "genuine sacrifices". Meanwhile, other European countries are being forced to adopt containment measures as drastic as Italy's,¹⁰ assuming that in a globalized world no country can act entirely independently.¹¹

This commentary seeks to share some key insights relevant to optimize the physical therapy reaction in response to Covid-19 infection although the quality and availability of data is today a challenge.

Based on the Italian experience, we recommend that:

- the International Health Regulations should not be violated during the Covid-19 outbreak;

- preventive measures need to be in place to ensure that physical therapists themselves do not fall ill due to the virus during work exposure (Smart-working, telemedicine systems, etc);
- fear should be fought with verified information;
- the morale and mental health of physical therapists must be safeguarded because this can influence the success of healthcare delivery; by strengthening the psychological defence, nations can continue to fight this long-drawn battle and secure success for the future.

Covid-19 emergency preparedness frequently does not take into account issues specific to rehabilitation patients, when patient and staff safety have to be at the forefront of providing rehabilitation services to our community. Besides being physical therapists, they are first and foremost health professionals and, before that, citizens who want to make their contribution to support the whole population and all the components of the health system responding efforts to this emergency.

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